

# The Case for a Basket, Band and Crawl (BBC) Regime for East Asia

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According to the IMF, four of the key developing countries of east Asia (Indonesia, Korea, Philippines, and Thailand) are independently floating, while Singapore has a managed float, China and Malaysia peg to the dollar, and Hong Kong pegs to the dollar via a currency board. Singapore's own description of its regime is a basket, band, and crawl (BBC), with undisclosed parameters. The principal regional currency not included in the IMF tabulation, the New Taiwan dollar, floats; most of us would probably want to call its float a managed one, though whether that is the way the IMF would classify it is unknowable. The smaller regional currencies are described as managed floats (Cambodia and Laos), a horizontal band (Vietnam), or pegged to the dollar (Myanmar).

It is not clear that the countries with floating currencies are all happy with that choice: in the case of Korea, reserve changes seem bigger than is consistent with a policy of floating as practiced by the industrial countries. In any event, it is clear that if monetary coordination is to be extended beyond the currency swaps agreed at Chiang Mai to cover exchange rate management, then some of the countries of the region are going to have to make a major policy change. The question to be discussed at this conference is whether such a change should be made and, if so, what regime(s) the region should adopt. The question that I have been asked to consider is whether a BBC regime would be a good choice. The paper therefore starts by outlining what such a regime involves. It proceeds to discuss the monetary implications of this exchange rate regime, before turning to a consideration of whether it might be a good choice for the principal countries of east Asia and of the steps that would be involved in its introduction.

## 1. Essentials of a BBC Regime

The **basket** part of the BBC proposal suggests that countries with diversified trade would do better to peg to a basket that would roughly stabilise their effective exchange rate<sup>2</sup>, rather than to a single currency. This proposal goes back to the academic writing of the 1970s on the optimal exchange rate peg. This literature was

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1. The author acknowledges helpful comments from David Gruen and conference participants on a previous draft.
  2. An 'effective exchange rate' is the weighted-average exchange rate against all currencies, where the weights are generally chosen to reflect the pattern of trade. (An alternative weighting system, based on trade elasticities, recognises that countries are also important competitors, rather than just trade partners.) A 'real effective exchange rate' corrects for changes in relative inflation so that the index does not change if prices increase as much at home as the weighted average of the country's trading partners.

aimed at developing countries, which at that time had not joined the move to float, but had discovered that floating among the industrial countries confronted them with a new problem. Specifically, countries with diversified trade found that, if they pegged to any single (industrial country) currency, exchange rate variations among the industrial country currencies could alter their effective exchange rates, and thereby disrupt their macroeconomic balance.

The questions asked in the literature on the optimal peg were: under what circumstances was it desirable to peg to a basket of currencies rather than a single currency? And, how was the optimal basket composed? I surveyed that literature as it was reaching maturity (Williamson 1982), and argued that one could draw some stylised answers. First, the objective should be to choose a basket that would stabilise the effective exchange rate. Second, although the weights in the basket should in principle be based on trade elasticities, in practice it was likely that trade weights would be the best that would be feasible. In general, therefore, countries should be advised to peg to a trade-weighted basket of the currencies of their principal trading partners. Of course, countries whose trade is heavily concentrated on a particular country, or currency area, do not face the dilemma of having to peg to a basket in order to avoid gyrations in their effective exchange rates: they can sensibly peg to the currency of their dominant trading partner.

There were four purposes in suggesting a wide **band** (interpreted as up to  $\pm 10$  per cent, or even  $\pm 15$  per cent). One was to make sure that the authorities did not get into the no-win situation of trying to defend a disequilibrium exchange rate, given that no one imagined it would be possible to estimate equilibrium at all precisely. A second was to permit the parity (the centre of the band) to be adjusted, to keep it in line with the fundamentals, without provoking expectations of discrete exchange rate changes that might destabilise the markets. A third was to give some scope for an independent monetary policy, to be used for anti-cyclical purposes when a country found its cycle out of sync with the world norm. The fourth was to help a country cope with strong but temporary capital inflows. As long as a band is (even partially) credible, arbitrageurs will allow for the expected reversion of the exchange rate toward its parity, and deduct an appropriate discount from (or add an appropriate premium to) the local currency yield when they compare their expected return from holding funds locally with foreign yields to decide whether to place funds in the country. Moreover, investors in the tradable goods industries may tend to look at the parity rather than the market rate when assessing whether to go ahead with potential investment projects, implying that a given deviation from equilibrium will have less effect in distorting investment decisions.

The final element of the BBC formula is the **crawl**. This is most often used with a view to neutralising differential inflation. It can also be used to steer inflation down over time, as was done in Israel, though this could run the risk of undermining competitiveness if pursued too dogmatically (as happened in Mexico and Russia). A crawl can also be adjusted in a fast-modernising economy in order to reflect an

expectation of Balassa-Samuelson productivity bias<sup>3</sup> and accomplish the real appreciation that such an economy requires over time in order to maintain equilibrium. Finally, the rate of crawl can be changed, or occasional small parity adjustments can be superimposed on the regular crawl, in order to facilitate needed real adjustment.

## 2. Monetary Implications

The standard view underlying today's bipolarity conventional wisdom is that choice of an exchange rate regime is essentially the same as choice of a monetary policy. Choosing a fixed exchange rate implies using the exchange rate as a nominal anchor. Using an inflation target as the nominal anchor implies allowing the exchange rate to float. Anything else reflects confusion, which is why it is prone to lead to crises.

This view would be completely convincing if the standard models of exchange rate determination were correct. These models postulate that exchange rates are determined by relative national price levels (purchasing power parity – PPP), relative inflation rates, relative interest rates, and portfolio positions. But there is now a long literature, going back to Meese and Rogoff (1983), that concludes that these models are all dismal empirical failures, at least for time horizons of less than a year or two. The failure to explain the current weakness of the euro (not to mention the Australian dollar) in terms of the US dollar is merely the latest of a long list of cases where textbook theories have not worked, and where developments in the foreign exchange markets seem to be explicable only in terms of fads and bubbles.

Suppose, for a moment, that it is indeed true that the movements of floating exchange rates are dominated by fads and bubbles rather than by the fundamentals posited by economic theory. This supposition provides no grounds for questioning the traditional view that exchange rates have important real effects, like influencing the trade balance and thus an economy's accumulation of foreign debt, or its rate of inflation, or unemployment, or investment, or the strength of protectionist forces. What it does suggest is that it may be possible to influence exchange rates by measures that alter fads or break bubbles, and that these need not necessarily operate through what economists have traditionally thought of as the fundamentals, notably monetary policy. It opens the possibility that sterilised intervention may be able to affect exchange rates, and not only in the very short run. It is consistent with a view that the markets might become a whole lot more self-stabilising again if only the authorities could re-establish their credibility.

This is in fact the view that underpins proposals to establish a BBC regime. In particular, a BBC regime should not be viewed as an *alternative* to inflation targeting, but as a *complement* to it. Inflation targeting may be thought of as the modern version of what Keynesian economists used to call 'internal balance' and implement through a call to maintain unemployment at a level that history had

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3. See Balassa (1964) and Samuelson (1964). Chile built a 2 per cent per annum real appreciation to reflect this factor into the formula for its crawl from 1995 to 1999.

suggested would be non-inflationary (or not too inflationary). As we have all understood for many years now, that policy prescription runs into deep trouble if the choice of how much inflation is not too much is such as to ignite inflation expectations or when some shock increases the ‘natural rate of unemployment’, since the prescribed policy then results in *accelerating* inflation unless expectations are quite implausibly inelastic. Inflation targeting is immune to that potential instability, and, if undertaken in a forward-looking way and with an appropriate choice of inflation rate to be targeted so as to exclude the first-round effects of exogenous shocks, it can amount to seeking the highest sustainable level of employment, i.e., pretty much the Keynesian concept of internal balance.

The standard Meade approach to macro policy (popularised in the ‘Australian analysis’ of Salter (1959) and Swan (1960)) postulated that policy should seek simultaneously to secure ‘internal balance’ and ‘external balance’. A little thought may convince one that it is irrational to give equal priority to both. The ill-effects of excess inflation today would be compounded rather than negated by deflation tomorrow, while today’s unemployed will not have their utility restored by working twice as much tomorrow. It follows that there is a strong social interest in securing continuous internal balance. In contrast, a short-run payments imbalance can be financed in the short run by a change in reserves (or a short-term capital flow) and reversed tomorrow for essentially zero social cost. It follows that a rational objective is to seek continuous internal balance but to allow short-run payments imbalances to be used as a shock absorber, and be content with securing external balance in the medium term. Hence the exchange rate objective in the BBC regime has always been specified as one that would secure external balance in the medium run. This is the concept of the ‘fundamental equilibrium exchange rate’, or FEER, that I introduced and first sought to measure in Williamson (1985).

One would expect the FEER to prevail on average over the cycle if the standard theories of exchange rate determination were correct. It is because they fail that it is rational to have an exchange rate policy and not be content to leave exchange rates to the market. Specifically, the objective of exchange rate policy is to prevent rates being carried far away from the rate that makes sense in terms of the fundamentals, given that policy is seeking internal balance. The exchange rate is targeted to secure (medium-run) external balance.

How can a country go about trying to prevent the exchange rate moving away from its FEER, or becoming misaligned? There are basically three options (although others, such as commercial policy, have had their adherents in the past): monetary policy, sterilised intervention, and capital controls.

Monetary policy is the classic instrument for trying to manage an exchange rate: indeed, a number of economists would claim that it is the only effective instrument, and others would regard it as the only legitimate instrument. The association between monetary stringency and a stronger exchange rate goes back all the way to David Hume.<sup>4</sup> Similarly, the Dornbusch model of a floating exchange rate postulates

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4. See Hume (1969) for a reprint of his essay on the balance of trade.

that the exchange rate deviates from its long-run equilibrium value (often characterised as PPP) by the integral of expected future short-term interest rate differentials between now and the long run.

It is only recently that the hypothesis that a higher interest rate can be relied on to strengthen the currency has been challenged. But during the Asian crisis Joseph Stiglitz argued that a rise in the domestic interest rate might have perverse effects on the exchange rate (see Furman and Stiglitz (1998) for the published version).<sup>5</sup> Specifically, he argued that what interests a creditor thinking of holding a currency is the expected value of his return, which is the product of the coupon rate and the probability that he will receive the contractual return. A higher interest rate can be relied on to increase the coupon rate, but it may threaten some debtors with bankruptcy and thus decrease the probability that the creditor will receive the contractual return. Stiglitz argued that there is no *a priori* reason why the first effect necessarily outweighs the second, so that it is theoretically possible that the effect of raising the interest rate could be perverse. One also got the impression that he actually thought this had been the case in east Asia in the second half of 1997.

Furman and Stiglitz presented some empirical evidence in support of this position, but in discussing their paper Steven Radelet argued 'the evidence that currencies might depreciate in the face of higher interest rates...simply is not convincing' (p 120). Ohno, Shirono, and Sisli (1999) undertook a Granger-causality test on daily data for the east Asian currencies that covered the crisis period and showed that the normal positive relationship from interest rates to exchange rates evaporated during the crisis period, but even they did not claim to have shown a negative relationship. Empirical investigations at the IMF have concluded against the Stiglitz conjecture (Basurto and Ghosh 2000; Goldfajn and Baig 1998; Zettelmeyer 2000). Nonetheless, there is some reason to believe the relationship weakens during a crisis, and the theoretical possibility of a perverse effect remains open.

My own view has tended to be that this is like the Laffer curve: a theoretical curiosity that may come into play in extreme situations, but that is not usually of policy relevance. Under most situations I have taken it as axiomatic that a higher interest rate could be expected to strengthen the currency. I was therefore taken aback to read in the press a couple of months ago that the euro had weakened because the European Central Bank had *not* cut its interest rate. Surely no one imagines that many European borrowers were bordering on insolvency and liable to be pushed over the edge unless the European interest rate was cut. Another possible explanation points to the fact that the only variable that seems to be at all capable of explaining the strength of the US dollar in terms of the euro in the past two or three years is the relative growth rate. When one asks why faster US growth should strengthen the dollar (for relative growth rates do not appear independent of relative interest rates among the variables in the standard models of exchange rate determination), one is told that faster growth increases profits which raises share prices and that equities

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5. Ito (1999) subsequently took up the argument.

rather than bonds are now the main destination for internationally mobile capital. That has a certain air of plausibility to it, even if one hesitates to embrace lower interest rates as a general remedy for strengthening a currency.

Two implications seem to follow. The first is to cast yet more doubt on the standard models of exchange rate determination that underlie the bipolarity thesis. The second is to throw into question the efficacy of what has heretofore been the one policy variable that everyone was confident could be used to manage a currency, if only the authorities were prepared to bear the costs in terms of possible damage to internal balance. Now one has to confess that one is not quite sure that it can be relied on to work in the right direction. And even if it does, the cost in terms of loss of internal balance may prove more severe than had previously been assumed.

Consider therefore the second policy variable that may be called on in the cause of exchange rate management, namely sterilised intervention. The tradition became established in the early 1980s, when people had recognised that capital mobility was high and when they still believed the standard models of exchange rate determination, of denying that sterilised intervention could have any significant or long-lasting effect on exchange rates. This conventional wisdom was enshrined in the Jurgensen Report (1983). The tradition has largely survived to the present day, even though the standard models of exchange rate determination that underlay the conclusion have long since been discredited. Meanwhile the empirical evidence has tended to suggest a more positive appraisal of the potential value of sterilised intervention (Catte, Galli, and Rebecchini 1994; Dominguez and Frankel 1993; Sarno and Taylor (forthcoming)). This is not to claim that governments can drive exchange rates where they want them and ignore market realities simply by spending reserves; we all know that attempts to maintain a target exchange rate in the face of strong market pressures have repeatedly been overwhelmed by the markets. But it is to suggest that intervention often fails to have an effect because it is undertaken on such a puny scale and without both parties being clearly committed to combating what they agree to be a misalignment. If undertaken boldly, publicly, jointly, and with an agreed objective of curbing a misalignment, sterilised intervention can often be helpful.

The third potential policy variable is capital controls. Once again, a tradition has developed of claiming that capital controls are ineffective. One suspects that this is more in the nature of wishful thinking rather than the conclusion of rigorous analysis. Of course, no one believes that capital controls can be made leak-proof; the question is whether they can limit the size and speed of capital flows across national borders. The recent experience of Malaysia makes it difficult to doubt that they can be used to that effect in a country with a reasonably effective bureaucracy. Earlier instances surveyed by Cooper (1999), including the British experience prior to 1979 when the premium on the investment dollar was usually in the range of 30 to 40 per cent, suggest that it is far from impossible to achieve significant market segmentation by capital controls. I examined the large literature on Chile's *encaje* (or unremunerated reserve requirement, URR) in Williamson (2000, pp 37–45), and concluded that there was overwhelming evidence that it influenced the composition of capital inflows (toward longer maturities) and reasonably persuasive evidence that it served to limit the overall volume of inflows.

The general conclusion suggested by this review is that it is unwise to imagine that exchange rates can be fine-tuned, even if domestic monetary policy is subjugated to that end, at least without a willingness to risk an excessive cost in terms of internal objectives. On the other hand, it is silly to regard exchange rates as the modern equivalent of acts of god – the result of immutable, all-powerful, all-wise market forces. If policy-makers decide that they do not trust the market to set the exchange rate, but wish to limit deviations from the rates that would seem to be implied by standard theory, they can command a battery of instruments that should enable them to achieve their objective in normal circumstances.

### 3. Suitability of BBC for East Asia

At a conference in Seoul in 1996 (Williamson 1999), I argued that there would be advantages to the east Asian currencies<sup>6</sup> in using a *common* basket of the three major world currencies (US dollar, yen, and now euro) to define their parities and thus the bands that would orient or specify their intervention policies.<sup>7</sup> Use of a currency basket in place of a peg to a single currency, the US dollar, would tend to stabilise their effective exchange rates against capricious variations as a result of movements in third-currency exchange rates, notably the gyrations between the yen and the dollar. I showed that the economies in question would lose little in terms of stabilising their effective exchange rates by all using the same basket (which I argued should be based on the direction of extra-regional trade of the region as a whole) rather than adopting different baskets based on their individual trade patterns.<sup>8</sup> However, a common peg would offer the important gain of ensuring that their exchange rates *vis-à-vis* one another were not destabilised by shocks to the dollar/yen/euro rates, thus avoiding the possibility of inadvertent competitive devaluation, or the suspicion of deliberate competitive devaluation, as a result of different pegging policies. I argued that there was no reason why individual economies could not continue to pursue different policies as regards changes relative to their parity: some could have a hard fix, like Hong Kong with its currency board; others might crawl against the basket, as Indonesia had been doing against the dollar; and others could use it simply as a guide to how they intervene in the foreign exchange market, as Singapore has done.

Perhaps the strongest argument for why the east Asian countries would have gained by moving to a basket peg has been made by Kwan (1998), who showed that the yen/US dollar exchange rate had a statistically significant effect on output growth in the nine Asian economies I included in my hypothetical basket prior to the Asian crisis. A strengthening of the yen depreciated their real effective exchange rates,

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6. To be specific, I was thinking of the currencies of China, Hong Kong, Indonesia, Korea, Malaysia, Philippines, Singapore, Taiwan, and Thailand.

7. Other advocates of the use of a common basket peg by the east Asian countries include Reisen and van Trotsenburg (1988) and Ogawa and Ito (2000). Mussa *et al* (2000, p 59) also show some sympathy for a currency basket approach in east Asia.

8. Indonesia would have found the common basket most out of line with its individual needs, but even in this case the problem that would have been created did not seem to be serious.

given their *de facto* dollar pegs, and thus accelerated their growth, while a weakening of the yen had the opposite effects. Even Ronald McKinnon (2000), in his paean to the east Asian dollar standard, admits that ‘the dollar zone was...buffeted by fluctuations in the yen/dollar exchange rate’, and that the effect of Thailand’s (*de facto*) dollar peg ‘was to cause Thailand’s REER to drift upward before the currency attacks began in mid 1997’. Oddly enough, McKinnon is in no way inhibited in his enthusiasm for the dollar standard by these considerations, even though the reasons he gives for advocating the dollar link – that this provided a non-inflationary nominal anchor, and that it stabilised exchange rates among the east Asian currencies – would have been equally well-served by a common basket peg. Some of us will conclude instead that we would prefer to have the advantages of the dollar peg without its disadvantages, which is what a basket peg would offer.<sup>9</sup>

Another critic of the proposal to base east Asian exchange rate policies on a common basket peg is Gordon de Brouwer (2001). Some of his criticisms relate to the idea of any type of pegging rather than floating, but he also challenges the merits of a common basket peg as opposed to some other form of peg. Specifically, he presents an interesting table (Table 4) in which he examines the effect of 10 per cent depreciations of yen and euro against the US dollar on the effective exchange rates of every country in east Asia if they were using a common dollar-yen-euro basket peg. Excluding Australia and New Zealand, it turns out that the only countries that would suffer a change in their effective exchange rate greater than 1.1 per cent in the face of either of those shocks are Cambodia, Laos, and Vietnam. At first glance this suggests that ASEAN’s new members would be less well served by a common basket peg than the countries on which I had focused in my earlier analysis. However, the concept of the effective exchange rate that de Brouwer uses appears to be measured solely in terms of the three major currencies. This is misleading. Since much of Asia’s trade is with other countries of the region the correct concept of the effective exchange rate would recognise this. By definition, a common peg involves no change in competitiveness relative to those other countries that are using the same peg, which means that the change in this measure of the effective exchange rate would be less than the one used by de Brouwer. This would appear to be of particular importance in the cases of Cambodia, Laos, and Vietnam, since de Brouwer tells us that ‘Trade patterns for these countries are highly skewed to other countries in the region, especially Thailand and Singapore’. I conclude that there is no evidence for believing that a common basket peg would not be suitable for these countries as well.<sup>10</sup>

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9. To be fair, McKinnon advocates stabilising the yen/US dollar rate, which would also resolve the problem. But the basket peg, which can be implemented by the east Asian countries themselves rather than requiring an intellectual conversion in the US Treasury, is a more relevant option.
  10. de Brouwer also examines export similarity indices of the east Asian economies and concludes that six of the nine economies are closer competitors to at least one of the three major areas (Japan, US and EU) than they are on average to other east Asian economies (and four are closer competitors to all three). This throws some doubt on my finding that these economies are strikingly close competitors with each other. But the implication of this is limited: a basket peg is still on average better at limiting variability with the major economies, and the differences between individual and common basket pegs are marginal.



A possible variant would be a system of mutual pegging among the east Asian currencies similar to the European snake and the exchange rate mechanism (ERM) prior to the evolution of the euro, instead of common pegging to a basket. There would seem to be several obstacles to east Asia taking that alternative route. Perhaps the most important is that the region contains no dominant economic power that could fulfil the role of anchoring the system as Germany did in Europe (unless Japan were to participate, but that would create its own problems of pulling the other countries around in the wake of the vagaries of the yen). Another problem is that it would impose a far more drastic change on Hong Kong than a BBC regime would, since Hong Kong would have to revert to (circumscribed) floating rather than simply changing the currency unit to which its currency board is keyed. A third is that China and Taiwan would have to defend their bilateral exchange rate (assuming both participated), something that might be politically problematic given their reluctance to acknowledge reality. For these reasons it seems to me that east Asia would be well advised to focus on a common basket peg rather than creating an Asian snake.

The case for the band part of the BBC regime is in my view less compelling. It is true that a demonstrated commitment to defending the edge of a band is the way to earn credibility with the foreign exchange market, and thus make speculation stabilising as explained in Paul Krugman's (1991) model of 'the bias in the band'. On the other hand, the best way to totally destroy a government's credibility is to make promises to defend a band that cannot be sustained in the face of attack. In weighing those two considerations I tend to give more weight to the second than the first, and thus to favour relatively loose commitments – a band that is wide rather than narrow, one with soft rather than hard edges, or even a band that has a centre (a parity) but no defined edges at all, i.e., the reference rate proposal. But I am not convinced that there are strong externalities in getting all countries in the region to make the same call on this issue. If China or Hong Kong wish to maintain a narrow band and are prepared to adopt the policies needed to defend it, then as long as the central rate is not misaligned it is not obvious that there are adverse consequences for their neighbours. This would not be true if the defence of the band involved severe and prolonged deflationary policies, but that seems unlikely in the absence of currency overvaluation.

An important question is whether the parameters of the band, and particularly its margins, should be published. On this issue the world's most successful practitioner of a BBC regime adopts a policy contrary to that which I have always advocated: Singapore does not publish the parameters of its band. I can understand that this makes life simpler, and perhaps safer, for central bankers, but it seems to me that non-publication thwarts the main purpose of having a band, which is to try and focus expectations so as to make speculation more stabilising.

The crawl part of the BBC proposal is about ensuring that central rates do not become misaligned. It is predicated on the assumption that it is important to avoid both misalignments in market exchange rates and also misalignments in the central rates or parities toward which policy may be directed. This is a lesson that east Asia certainly needs to ensure has been internalised if it returns to any exchange rate regime other than unmanaged floating. The appreciation of the US dollar was not the

only reason that the Thai baht had become overvalued by 1997. There had also been a long period of excess inflation – moderate excess, but cumulatively larger than could be safely afforded, as shown by the large and persistent current account deficit.<sup>11</sup> The region is also at that stage of development where it can expect countries to be benefiting from Balassa-Samuelson productivity bias, as Singapore already has done over the years, and therefore able to benefit from modest, gradual real appreciation. It makes sense to provide for this to be accomplished by nominal appreciation rather than by excess inflation.

One also has to expect that there will sometimes be real shocks, such as changes in the terms of trade or the willingness of the international capital market to lend to a country. An efficient response to such shocks will normally include a change in the real exchange rate. If the region is involved in any sort of cooperative monetary management, parity changes determined as a response to such shocks will need to be decided collaboratively rather than individually. That will put a premium on making sure that the changes made, or even discussed, are always small relative to the width of the band, since otherwise rumours of what may be decided will create havoc in the markets. Given a wide band, this need not in most cases preclude making changes that are agreed to be needed in a single step, which will have the advantage of not compelling a country to adopt an interest rate that allows for the subsequent crawl in its exchange rate. An anticipated crawl requires an offsetting interest differential to neutralise the incentive to shift funds, but this is a price worth paying if it is necessary to make a change that is too large to be accommodated comfortably within the band. Better to make a change gradually than to allow credibility capital to be destroyed.

An exception may arise where a country confronts contagion (something that east Asians are now painfully aware is possible). Singapore's experience in 1997 is interesting in this context. In place of the gradual upward crawl of the Singapore dollar, the Monetary Authority of Singapore (MAS) allowed a 14 per cent depreciation relative to the SDR (17 per cent relative to the US dollar) between the middle and end of 1997. Since the Singapore authorities do not publish the parameters of their BBC regime, it is not possible to be sure that this involved a change in the parity rather than simply a movement within the band, but it looks as though it did. Yet this event seems to have had little if any cost in terms of undermining the credibility of the MAS with the market, which presumably found it easy to recognise that Singapore was faced by unusual circumstances beyond its control that legitimised a deviation from its standard regime.

This suggests the type of circumstance in which a country with a soft band can take advantage of the softness to allow its exchange rate to go outside its announced band. The shock should be exogenous and of a character that could not reasonably have been anticipated when the regime was announced. A sensible strategy might be to cease defending the band until the new circumstances have become sufficiently clear to permit the authorities to decide whether, and how much, to change the band. In

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11. Producer prices rose 21.8 per cent in Thailand from 1992 to 1997, as opposed to 8.9 per cent in the US. Consumer prices rose 28.3 per cent as against 14.3 per cent in the US.

the interim the market would know that in due course a new parity will be chosen, and market operators will know that they risk losing money if they are holding currency at a rate too far away from the new parity when it is announced. This should do something to discourage the rate shooting off to values far removed from those that can be justified in terms of the fundamentals.

#### **4. Possible Evolution of a BBC Regime**

It is possible to envisage at least four possible future paths for exchange rate policy in east Asia. One is that the region reverts to the US dollar standard (a system that the arguments already presented imply to be clearly inferior to a BBC regime). The second is that the region comes to acquiesce in the Anglo-Saxon norm of unmanaged floating. A third is that it moves to some form of permanent BBC regime. A fourth is that it uses a BBC regime as a transition mechanism toward monetary union. (Short-run adoption of a BBC regime need neither imply nor preclude a subsequent move to monetary union, but it is difficult to imagine a move straight to monetary union without an intermediate regime.) Inflation targeting should not be regarded as an alternative to the latter three possibilities; it is something that could sensibly be adopted under any of them (on a collective basis, of course, if and when monetary union is achieved).

The paper concludes with a brief consideration of how the region might move from its present mix dominated by fixed rates in some countries and ostensible floating in others toward a BBC regime throughout the region.

Perhaps the first step should be to negotiate the creation of an Asian currency unit (ACU) with composition suitable for a common basket peg. The considerations of the direction of trade that were discussed earlier would suggest that this should consist of something in the range of 35 to 40 per cent US dollar, 30 to 35 per cent yen, and about 30 per cent euro. The governments of the region might start issuing some of their debt in the form of ACUs in order to create a market in the unit. This would facilitate private sector trade once countries shifted to pegging to the ACU, since forward markets could quickly be established between the ACU and each of the main world currencies. In some cases, where regional currencies seemed likely to fluctuate a lot in terms of the ACU, forward markets might also be established between the regional currencies and the ACU. A functioning ACU market would eliminate the most obvious reason that governments have at the moment for seeking stability in terms of the dollar rather than their effective exchange rates, which is the microeconomic inconvenience to traders of not being able to use the peg currency for their transactions.

Once a market in ACUs was functioning, one would look for an agreement to use the ACU as the common reference point for the exchange rates of all countries of the region. Countries with pegged exchange rates (China, Hong Kong, Malaysia, Myanmar, and Vietnam) would shift their parity from dollars (or any currency composite they may currently be using) to the ACU. Countries with managed exchange rates that have been using an undisclosed basket as a basis for managing their exchange rates (Singapore, and perhaps Cambodia and Laos) would use the

ACU instead. Countries with floating currencies could announce a reference rate in terms of the ACU.

This operation presents three potential problems, in addition to the obvious one of persuading all the countries of the region that they would be better off using an ACU peg rather than a dollar peg. It is amazing how some people can convince themselves that a basket would be too complicated to carry credibility: senior Hong Kong officials seriously give this as a reason for not changing their policy of dollar pegging, in a city where every third person seems to be a currency trader willing to offer a quotation on the Zambian kwacha. One would hope that prior familiarity with the ACU would relieve the anxieties of those who so lack faith in the analytical abilities of their citizens.

The first is that countries with pegged exchange rates could find themselves locking-in a misaligned exchange rate if they shifted from a dollar to an ACU peg on a day when the dollar was on average overvalued relative to the yen and euro, assuming that the shift is to be made without imposing a discontinuous change in the market exchange rate. It is of course highly desirable to avoid any market suspicions that there may be discontinuous changes in market rates, so as to avoid provoking speculative pressures. This problem will be more acute the narrower are the margins. Probably the best way to resolve this problem would be to wait to make the shift until a time when the dollar is close to its FEER.

The second problem is that it would require all countries to disclose the content of their basket and the central value at which they peg to it. These are among the parameters of its managed float that Singapore has heretofore kept secret. Certainly the content of the basket would be public knowledge. Conceivably, knowledge of the parity could be kept confidential among the monetary authorities that were party to the agreement, although it seems somewhat improbable that secrecy would in practice be maintained. My own view is that such public knowledge would be a thoroughly good thing; a secret parity can never play any role in helping to focus expectations and thus stabilise exchange rates. But, as I have already noted, my view is not shared universally – specifically, it is not held by the Monetary Authority of Singapore.

The third problem is that the countries that have been floating would need to agree on reference rates for their currencies. It is central to the whole concept of cooperative exchange rate management that these should be mutually agreed values rather than unilateral declarations. This would mean not only that the countries themselves should have a clear concept of what macroeconomic strategy they wish to pursue (in particular, in terms of balance of payments objectives), but that these should be objectives that their partners regard as acceptable. It would of course ease matters to pose the initial task as one of agreeing reference rates, since these do not imply specific intervention obligations.

The principle of multilateral agreement of parities is one that should be maintained even after the initial set of parities had been agreed. This would imply continual consultation on each country's crawl relative to the ACU. Those countries that started off with fixed exchange rates might start to allow their rates to crawl, based

on the same principles as were being developed to govern changes in reference rates. This should enable these countries to solve the 'exit problem' that otherwise sooner or later confronts any country with a fixed exchange rate that is not prepared to subjugate its domestic policies to the priority of maintaining a fixed exchange rate.

In due course one would hope to see those countries with reference rates start to act with a view to limiting deviations from their announced parities. One would hope that this process would gradually build up credibility for the monetary authorities. Only when substantial credibility had been accumulated would it seem wise to announce bands (limits on the deviations from parity). At that point it would be possible to begin considering whether there is a desire to proceed further and pursue a goal of eventual monetary integration, but that is the topic of another paper in this conference.

## References

- Balassa BA (1964), 'The Purchasing-power Parity Doctrine: A Reappraisal', *Journal of Political Economy*, 72, pp 584–596.
- Basurto G and A Ghosh (2000), 'The Interest Rate–Exchange Rate Nexus in the Asian Crisis Countries', IMF Working Paper No WP/00/19.
- Catte P, G Galli and S Rebecchini (1994), 'Concerted interventions and the dollar: an analysis of daily data', in PB Kenen, F Papadia and F Saccomanni (eds), *The International Monetary System*, Proceedings of a Conference organized by the Banca d'Italia, Cambridge University Press, Cambridge, pp 201–239.
- Cooper RN (1999), 'Should Capital Controls be Banished?', *Brookings Papers on Economic Activity*, 1, pp 89–141.
- de Brouwer GJ (2001), 'Does a Formal Common-Basket Peg in East Asia Make Economic Sense?', in GJ de Brouwer (ed), *Financial Markets and Policies in East Asia*, Routledge, London, pp 286–314.
- Dominguez KM and JA Frankel (1993), *Does Foreign Exchange Intervention Work?*, Institute for International Economics, Washington DC.
- Furman J and JE Stiglitz (1998), 'Economic Crises: Evidence and Insights from East Asia', *Brookings Papers on Economic Activity*, 2, pp 1–135.
- Goldfajn I and T Baig (1998), 'Monetary Policy in the Aftermath of Currency Crises: The Case of Asia', IMF Working Paper No WP/98/170.
- Hume D (1969), 'Of the balance of trade', in RN Cooper (ed), *International Finance: Selected Readings*, Penguin Books Ltd, Harmondsworth, pp 25–37.
- Ito T (1999), 'The Role of IMF Advice', paper presented to the IMF Conference on 'Reforming the International Monetary and Financial System', Washington DC, May 28–29.
- Jurgensen Report (1983), *Report of the Working Group on Exchange Market Intervention*, Working Group on exchange market intervention established at the Versailles Summit of the Heads of State and Government, 4–6 June 1982.
- Krugman PR (1991), 'Target Zones and Exchange Rate Dynamics', *Quarterly Journal of Economics*, 106(3), pp 669–682.
- Kwan CH (1998), 'The Yen, the Yuan, and the Asian Currency Crisis: Changing Fortune between Japan and China', available at <<http://aparc.stanford.edu/docs/kwan.pdf>>.
- McKinnon RI (2000), 'The East Asian Dollar Standard: Life After Death?', *Economic Notes*, 29(1), pp 31–82.
- Meese RA and K Rogoff (1983), 'Empirical Exchange Rate Models of the Seventies: Do they fit out of sample?', *Journal of International Economics*, 14(1/2), pp 3–24.
- Mussa M, P Masson, AK Swoboda, E Jadresic, P Mauro and A Berg (2000), 'Exchange Rate Regimes in an Increasingly Integrated World Economy', IMF Occasional Paper No 193.
- Ogawa E and T Ito (2000), 'On the Desirability of a Regional Basket Currency Arrangement', NBER Working Paper No 8002.

- Ohno K, K Shirono and E Sisli (1999), 'Can High Interest Rates Stop Regional Currency Falls? The Asian Experience in 1997–98', ADB Institute Working Paper Series No 6.
- Reisen H and A van Trotsenburg (1988), 'Should the Asian NICs Peg to the Yen?', *Intereconomics*, 23(4), pp 172–177.
- Salter WEG (1959), 'Internal and External Balance: The Role of Price and Expenditure Effects', *Economic Record*, 35(71), pp 226–238.
- Samuelson PA (1964), 'Theoretical Notes on Trade Problems', *Review of Economics and Statistics*, 46, pp 145–154.
- Sarno L and MP Taylor (forthcoming), 'Official Intervention in the Foreign Exchange Market: Is it Effective and, If So, How Does it Work?', *Journal of Economic Literature*.
- Swan TW (1960), 'Economic Control in a Dependent Economy', *Economic Record*, 36(73), pp 51–66.
- Williamson J (1982), 'A Survey of the Literature on the Optimal Peg', *Journal of Development Economics*, 11(1), pp 39–61.
- Williamson J (1985), 'The Exchange Rate System', Policy Analyses in International Economics No 5, Institute for International Economics.
- Williamson J (1999), 'The Case for a Common Basket Peg for East Asian Currencies', in S Collignon, J Pisani-Ferry and YC Park (eds), *Exchange Rate Policies in Emerging Asian Countries*, Routledge, London, pp 327–343.
- Williamson J (2000), 'Exchange Rate Regimes for Emerging Markets: Reviving the Intermediate Option', Policy Analyses in International Economics No 60, Institute for International Economics.
- Zettelmeyer J (2000), 'The Impact of Monetary Policy on the Exchange Rate: Evidence from Three Small Open Economies', IMF Working Paper No WP/00/141.